

Supplemental Table S1. Characteristics of Primers Used in the RT-qPCR Reaction

Gene name	Sense Primer (5'–3')	Anti-Sense Primer (5'–3')	size (bp)
<i>ACC</i>	F: CTCCAACCTCAACCACTACGG	R: GGGGAATCACAGAAGCAGCC	171
<i>AGPAT6</i>	F: AAGCAAGTTGCCCATCCTCA	R: AAAGTGTGGCTCCAATTCGA	101
<i>ATGL</i>	F: GGAGCTTATCCAGGCCAATG	R: TGCGGGCAGATGTCACTCT	180
<i>DGAT1</i>	F: CCACTGGGACCTGAGGTGTC	R: GCATCACCACACACCAATTCA	101
<i>DGAT2</i>	F: CATGTACACATTCTGCACCGATT	R: TGACCTCCTGCCACCTTTCT	100
<i>FASN</i>	F: GGGCTCCACCACCGTGTTC	R: GCTCTGCTGGGCCTGCAGCTG	226
<i>GAPDH</i>	F: GCAAGTTCCACGGCACAG	R: GGTTCACGCCCATCACA	249
<i>GPAM</i>	F: ATTGACCCTTGGCACGATAG	R: AACAGCACCTTCCCACAAAG	188
<i>LXRα</i>	F: CATCAACCCCATCTTCGAGTT	R: CAGGGCCTCCACATATGTGT	163
<i>MAT</i>	F: ATGGCGGCTGTAGGCTTGAC	R: GCACCTCCTTGGCGAACACG	169
<i>PPARγ</i>	F: CCTTCACCACCGTTGACTTCT	R: GATACAGGCTCCACTTTGATTGC	145
<i>SCD1</i>	F : CCATCGCCTGTGGAGTCAC	R: GTCGGATAAATCTAGCGTAGCA	256
<i>SREBP1α</i>	F: CTGCTGACCGACATAGAAGACAT	R: GTAGGGCGGGTCAAACAGG	81
<i>TIP47</i>	F: GGTGGAGGGTCAGGAGAAA	R: TCACGGAACATGGCGAGT	123
<i>UXT</i>	F: TGTGGCCCTTGGAATATGGTT	R: GGTGTGCTGCTGAGCTCTGTG	101
<i>XDH</i>	F: GATCATCCACTTTTCTGCCAATG	R: CCTCGTCTTGGTGCTTCAA	100

Supplemental Table S2. Amplification primer of sgRNA6 target site sequence

target sites	The first primer	length bp	The second primer	length bp
ON	F: CAGCAGCCATGCCCTTC R: CGTCGGCATAGGCACAGG	587	F: AGGTGCCAACCAGCAAGCG R: TGGGAACAGGATGGGTCAGG	415
OT1	F: TGTAGTCCATCAGGCTCTT R: GCCCTGCCCAATAAAG	661	F: AGTTGCCATTTCTTCCT R: AGAATCCCAGCAGCAT	513
OT2	F: GTCCGTTACCTCCCAAGTA R: ATCCCACCTCCAGCACCTA	645	F: GACCCAGAAGTGGTCATCCC R: CCCACCTCCAGCACCTACA	576
OT3	F: GGGAGTAAACAACCGAAGAG R: GGGTAGCGATGCCTGTG	696	F: TTATTCGGAGCAGCAGTTT R: AGCGGAACCTGGCACA	421
OT4	F: GGAGCCAGTTGTGAATG R: GGAGACAGCCGTGAAG	649	F: GTGAATGGGATTTGTTTG R: TGGACATTGCCTGAAGT	491
OT5	F: GGAGGGCAAGATAGGC R: AGACCAGCAACCCAAGA	633	F: GGGAAAGGAGACCATAAA R: AGACCAGCAACCCAAGA	497
OT6	F: CCGGTGGACAGGGAAAGGA R: TAGGAGGCGGGACTGTGGAG	661	F: GGTGGACAGGGAAAGGAGAC R: GCTGACTGATGCGTGGGTAT	519
OT7	F: CTCGCTTCTGCGTCTTCA R: GCCATCACATTACCTATCCCT	717	F: GCTGCGGGATGTTGTGC R: GCCTATGTTGGGTGCTGA	532
OT8	F: GGGCAAGGCACGAGTGAGGT R: GCTGGGTGAGAACAGGAGCAG	648	F: CACGAGTGAGGTCTCTTTCCC R: GCATGATGTTCTCGGGCTTG	554
OT9	F: GGGCAGCACTCATCAC R: AACCAGGTCCTAACCAAC	662	F: CTCTGGAAGCGAAGTGC R: AACCAGGTCCTAACCAACT	539

Supplemental Table S3. Physicochemical properties of knockout genotypes.

	WT	No.2-1	No.2-2	No.5	No.6-1	No.6-2
Number of bases missing	-0	-2	-57	-8	-4	-2
Theoretical value of PI	5.83	11.13	5.82	10.59	11.77	10.93
Coefficient of instability	53.35	58.25	53.96	59.73	98.53	60.51
Coefficient of fat	102.02	67.98	99.45	65.89	41.93	67.29
Total mean hydrophilicity	0.106	-0.691	0.088	-0.745	-0.483	-0.708